

Amendments to the Claims

The listing of claims below will replace all prior versions and listings of claims in the present application.

Claim Listing

1 1. (Currently Amended) A method comprising:
 2 determining a first specification for a first set of needed storage regions, wherein
 3 the first set of needed storage regions is needed to perform an operation on
 4 a logical volume, and the first set of needed storage regions satisfies an
 5 intent of the logical volume;
 6 searching a plurality of existing storage regions for a corresponding existing
 7 storage region for each needed storage region in the first set of needed
 8 storage regions; and
 9 if no existing storage region is found corresponding to a first needed storage
 10 region in the first set of needed storage regions, determining a second
 11 specification for a second set of storage regions to be acquired.

1 2. (Currently Amended) The method of claim 1 wherein the second set of
 2 storage regions to be acquired comprises at least the first needed storage region.

1 3. (Currently Amended) The method of claim 2 wherein the second specification
 2 for the second set of storage regions to be acquired comprises an attribute of the first
 3 needed storage region, and a connection between the first needed storage region and a
 4 storage object in the logical volume.

1 4. (Currently Amended) The method of claim 3 1 further comprising:
 2 using the second specification to acquire a third set of storage regions.

1 5. (Original) The method of claim 4 wherein
 2 the third set of storage regions is a subset of the second set of storage regions.

1 6. (Currently Amended) The method of claim 3 1 further comprising:
2 acquiring the second set of storage regions; and
3 performing the operation on the logical volume using the second set of storage
4 regions to be acquired.

1 7. (Currently Amended) The method of claim 3 1 wherein the second set of
2 storage regions to be acquired satisfies the intent of the logical volume.

1 8. (Currently Amended) The method of claim 3 1 further comprising:
2 determining a third specification, wherein the determining the third specification
3 comprises specifying an existing storage region of the plurality of existing
4 storage regions to reserve for performing the operation.

1 9. (Currently Amended) The method of claim 3 1 wherein the second set of
2 storage regions to be acquired excludes a second needed storage region for which an
3 existing storage region of the plurality of existing storage regions is found.

1 10. (Currently Amended) The method of claim 3 1 wherein
2 the operation comprises increasing a size of the logical volume.

1 11. (Currently Amended) The method of claim 3 1 wherein
2 the operation comprises evacuating data from the logical volume.

1 12. (Currently Amended) The method of claim 3 1 wherein
2 the operation comprises relocating data of the logical volume.

1 13. (Currently Amended) A system comprising:
2 first determining means for determining a first specification for a first set of
3 needed storage regions, wherein the first set of needed storage regions is
4 needed to perform an operation on a logical volume, and the first set of
5 needed storage regions satisfies an intent of the logical volume;

6 searching means for searching a plurality of existing storage regions for a
7 corresponding existing storage region for each needed storage region in
8 the first set of needed storage regions; and
9 second determining means for determining a second specification for a second set
10 of storage regions to be acquired if no existing storage region is found
11 corresponding to a first needed storage region in the first set of needed
12 storage regions.

1 14. (Original) The system of claim 13 further comprising:
2 using means for using the second specification to acquire a third set of storage
3 regions.

1 15. (Currently Amended) The system of claim 14 wherein the third set of storage
2 regions is a subset of the second set of storage regions to be acquired.

1 16. (Currently Amended) The system of claim ~~14~~ 13 further comprising:
2 acquiring means for acquiring the second set of storage regions to be acquired;
3 and
4 performing means for performing the operation on the logical volume using the
5 second set of storage regions to be acquired.

1 17. (Currently Amended) The system of claim ~~14~~ 13 further comprising:
2 third determining means for determining a third specification, wherein the
3 determining the third specification comprises specifying an existing
4 storage region of the plurality of existing storage regions to reserve for
5 performing the operation.

1 18. (Currently Amended) A system comprising:
2 a first determining module configured to determine a first specification for a first
3 set of needed storage regions, wherein the first set of needed storage
4 regions is needed to perform an operation on a logical volume, and the
5 first set of needed storage regions satisfies an intent of the logical volume;

6 a searching module configured to search a plurality of existing storage regions for
7 a corresponding existing storage region for each needed storage region in
8 the first set of storage regions; and
9 a second determining module configured to determine a second specification for a
10 second set of storage regions to be acquired if no existing storage region is
11 found corresponding to a first needed storage region in the first set of
12 needed storage regions.

1 19. (Currently Amended) The system of claim 18 wherein the second set of
2 storage regions to be acquired comprises at least the first needed storage region.

1 20. (Currently Amended) The system of claim ~~19~~ 18 wherein the second
2 specification for the second set of storage regions to be acquired comprises
3 an attribute of the first needed storage region, and
4 a connection between the first needed storage region and a storage object in the
5 logical volume.

1 21. (Currently Amended) The system of claim ~~20~~ 18 further comprising:
2 an acquiring module configured to acquire the second set of storage regions to be
3 acquired; and
4 a performing module configured to perform the operation on the logical volume
5 using the second set of storage regions to be acquired.

1 22. (Currently Amended) The system of claim ~~20~~ 18 further comprising:
2 a third determining module configured to determine a third specification, wherein
3 the determining the third specification comprises specifying an existing
4 storage region of the plurality of existing storage regions to reserve for
5 performing the operation.

1 23. (Currently Amended) A computer-readable medium comprising:
2 first determining instructions configured to determine a first specification for a
3 first set of needed storage regions, wherein

4 the first set of needed storage regions is needed to perform an operation on a
5 logical volume, and
6 the first set of needed storage regions satisfies an intent of the logical volume;
7 searching instructions configured to search a plurality of existing storage regions
8 for a corresponding existing storage region for each needed storage region
9 in the first set of needed storage regions; and
10 second determining instructions configured to determine a second specification
11 for a second set of storage regions to be acquired if no existing storage
12 region is found corresponding to a first needed storage region in the first
13 set of needed storage regions.

1 24. (Currently Amended) The computer-readable medium of claim 23 wherein
2 the second set of storage regions to be acquired comprises at least the first needed storage
3 region.

1 25. (Currently Amended) The computer-readable medium of claim 24 23
2 wherein the second specification for the second set of storage regions to be acquired
3 comprises
4 an attribute of the first needed storage region, and
5 a connection between the first needed storage region and a storage object in the
6 logical volume.

1 26. (Currently Amended) The computer-readable medium of claim ~~25~~ 23 further
2 comprising:
3 acquiring instructions configured to acquire the second set of storage regions to be
4 acquired; and
5 performing instructions configured to perform the operation on the logical volume
6 using the second set of storage regions to be acquired.

1 27. (Currently Amended) The computer-readable medium of claim ~~25~~ 23 further
2 comprising:

3 third determining instructions configured to determine a third specification,
4 wherein the determining the third specification comprises specifying an
5 existing storage region of the plurality of existing storage regions to
6 reserve for performing the operation.

1 28. (Cancelled)